

Claims

[c1] What is claimed is:

1. A color printer comprising:

a ribbon comprising a plurality of dye regions, each dye region comprising a plurality of dye areas for carrying dye of different colors;

a print head for transferring dye on the ribbon onto a subject;

a ribbon-moving device for moving the ribbon so that the print head can transfer the dye on each of the dye areas of one dye region onto the subject to form a color picture;

an optical sensing module installed on the side of the ribbon comprising an optical encoding disk driven by the ribbon-moving device for generating a count when the ribbon-moving device moves the ribbon; and

a control module for controlling the ribbon-moving device to move the next dye region of the ribbon to the print head after finishing printing one dye region of the ribbon according to the count of the optical encoding disk.

[c2] 2.The color printer of claim 1, wherein the ribbon further

comprises at least one dividing section positioned between the two adjacent dye regions.

- [c3] 3. The color printer of claim 2, wherein the optical sensing module further comprises a first light source for emitting light to the ribbon and a light sensor, which generates a sensing signal to the control module by detecting light which is emitted from the first light source and penetrates the ribbon.
- [c4] 4. The color printer of claim 1, wherein the optical sensing module further comprises a second light source for emitting light to the optical encoding disk and a light detector for receiving light emitted from the second light source and passing through the optical encoding disk so as to obtain the count of the optical encoding disk.
- [c5] 5. The color printer of claim 1, wherein the ribbon-moving device rolls the ribbon at a substantially constant speed.
- [c6] 6. The color printer of claim 1, wherein each dye region comprises a yellow dye area, a magenta dye area, a cyan dye area, and an overcoating dye area.
- [c7] 7. The color printer of claim 1, wherein the control module can recognize the present position of the ribbon according to the count of the optical encoding disk.

[c8] 8.The color printer of claim 1, wherein the color printer is a photo printer.